

**Area of impact: Arts, entertainment and leisure**

3. Soon, many television stations will change from broadcasting on analogue airwaves to begin broadcasting only in digital. Digital broadcasting will allow stations to offer high resolution pictures and better sound quality as well as additional channels.

With digital TV, sounds and pictures from the broadcaster are converted into binary digits (bits) and sent through an aerial, satellite, telephone line or cable. This digital signal is then turned back into sounds and pictures by a digital box or a digital TV set.

Some digital boxes have special access features such as subtitles, signing and audio description for people with hearing or sight problems.

However, recent improvements in Internet bandwidth and the increased availability of video through web sites such as *YouTube*, have led to questions being raised about the need for additional digital channels.

- (a) Define the term *resolution*. [2 marks]
- (b) Digital TV broadcasters are able to provide interactive services. Describe **two** interactive services that could be provided with digital TV. [4 marks]
- (c) Explain **two** ways in which a domestic installation such as a digital TV can communicate with the digital provider. [4 marks]
- (d) To what extent is the growth of video clips on the Internet overtaking the need for digital TV? [10 marks]